

**1 Bezeichnung des Stoffes / der Zubereitung und des Unternehmens  
Identification of the substance/preparation and of the company/undertaking**

**1.1 Bezeichnung des Stoffes oder der Zubereitung / Identification of the substance or preparation**

Microbial enzyme preparation, produced by fermentation, extraction, concentration, elimination of depectinase side activity, filtration, stabilisation and or preservation and standardization. Enzymes act as biocatalysts to perform specific reactions under standard reaction conditions. The enzyme preparation described leads to a degradation of pectin and pectic substances. It is standardized to a specified activity.

Artikelnummer / Art.-no.	Handelsname / Trade name
2142x	Trenolin® Flot DF
2174x	Trenolin® Mash DF
2030x	Trenolin® Filtro DF
2031x	Trenolin® Super DF
2021x	Trenolin® 4000 DF
2027x	Trenolin® Bukett DF
2202x	Trenolin® T-Stab DF
2175x	Trenolin® Thermo DF
2025x	Trenolin® Rouge DF
2020x	Trenolin® Rot DF
2194x	Trenolin® Pexx
2178x	Trenolin® Extract
2264x	Trenolin® Frio DF
2276x	Trenolin® FastFlow DF
2249x	Trenolin® Duro
2203x	Trenolin® Xtra

**1.2 Verwendung des Stoffes / der Zubereitung / Use of the substance / preparation**

**1.2.1 Identifizierte Verwendung(en) / Identified use(s)**

**Industrie / Gewerbe / Industry / Professional:** According to Erbslöh product leaflet.  
**Privat / Private:** None.

**1.3 EG-Inverkehrbringer / EC market responsible person**

**1.3.1 Bezeichnung des Unternehmens / Company/undertaking identification**

Erbslöh Geisenheim AG, Erbslöhstraße 1, 65366 Geisenheim, Germany  
E-Mail: info@erbsloeh.com, Internet: www.erbsloeh.com

**1.3.2 Notrufnummer / Emergency telephone:**

Tel: +49 (0) 6722 708-0: Diese Nummer ist nur zu Bürozeiten von Mo-Fr besetzt. This number is serviced during office hours from Monday-Friday.

**2 Mögliche Gefahren / Hazards identification**

**2.1 Einstufung / Classification:**

The preparation is not dangerous in the sense of EU legislation.

**2.2 Andere Gefahren / Other hazard(s):**

May cause sensitization by inhalation.

**3 Zusammensetzung/Angaben zu Bestandteilen / Composition/information on ingredients**

**3.1. Chemische Charakterisierung (Stoff) / Chemical characterization (substance)**

**Chemische Bezeichnung / Chemical name: :**

Liquid preparation of a microbially produced enzyme protein, stabilized with glycerol and/or potassium chloride. All ingredients of food-grade quality.

Enzym-Hauptaktivität main enzyme activity	EINECS-Nr. EINECS no.	IUB-Nr. IUB no.	CAS-Nr. CAS no.
Pectinase	232-885-6	3.2.1.15	9032-75-1

**Synonym(e) / Synonyme(s):** ---.

**Gefahrensymbol(e) / Hazard(ous) symbol(s):**

**H-Sätze / H-phrases:** None.

**Gefährliche Bestandteile / Verunreinigungen / Hazard(ous) ingredients / impurity(ies):**

Enzyme protein (2-20%).

**3.2. Zusätzliche Hinweise / Additional information:**

Do not breathe in spray. Avoid contact with skin. Wear suitable protective clothing and gloves.

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#### 4 Erste-Hilfe-Maßnahmen / First aid measures

**4.1 Allgemeine Hinweise / General informations**

No acute toxicity, but if exposed to enzyme aerosols, respiration problems and allergic reactions with sensitive persons might occur. In case of prolonged skin contact, enzyme solution can cause irritations.

**4.2 Nach Einatmen / In case of inhalation**

Remove to fresh air. Drink water, in case of health problems seek medical advice.

**4.3 Nach Hautkontakt / In case of skin contact**

Wash off with water and soap. Immediately wash with water and soap, in case of skin irritations consult doctor.

**4.4 Nach Augenkontakt / In case of eye contact**

In case of contact with eyes, rinse immediately thoroughly with plenty of water and consult an ophthalmologist.

**4.5 Nach Verschlucken / In case of ingestion**

If swallowed immediately drink water.

**4.6 Selbstschutz des Ersthelfers / Self-protection of the first aider**

First aider: Pay attention to self-protection!

#### 5 Maßnahmen zur Brandbekämpfung / Fire-fighting measures

**5.1 Geeignete Löschmittel / Suitable extinguishing media**

Suitable extinguishing media: water, carbon dioxide (CO<sub>2</sub>), foam, extinguishing powder.

**5.2 Löschmittel, die aus Sicherheitsgründen nicht zu verwenden sind / Extinguishing media which must not be used for safety reasons**

Co-ordinate fire-fighting measures to the fire surroundings.

**5.3 Besondere Gefährdungen / Special exposure hazards**

No special hazards.

**5.4 Besondere Schutzausrüstung für die Brandbekämpfung / Special protective equipment for fire-fighters**

Wear full protective clothing.

#### 6 Maßnahmen bei unbeabsichtigter Freisetzung / Accidental release measures

**6.1 Personenbezogene Vorsichtsmaßnahmen / Personal precautions**

Avoid generation of aerosols.

**6.2 Umweltschutzmaßnahmen / Environmental precautions**

Prevent from flowing off into the sewage system/surface water/ground water.

**6.3 Verfahren zur Reinigung / Methods for cleaning up**

Take up by liquid-absorbing material (e.g. sand, kieselguhr, acid binding agent, universal binder, sawdust).

**6.4 Zusätzliche Hinweise / Additional information**

No additional information.

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## 7 Handhabung und Lagerung / Handling and Storage

### 7.1. Handhabung / Handling

Working places should be designed to allow cleaning at any time. Avoid dust formation.

### 7.2. Lagerung / Lagerbedingung / Storage / storage conditions

Store in a cool, dry, well-ventilated place, protected from foreign odours.

### 7.3. Bestimmte Verwendung(en) / Specific use(s)

See product leaflet.

## 8 Begrenzung und Überwachung der Exposition / persönliche Schutzausrüstung / Exposure controls / Personal protection

### 8.1. Expositionsgrenzwerte / Exposure limit values

No substance related limit value available.

### 8.2. Begrenzung und Überwachung der Exposition / Exposure controls

#### 8.2.1. Begrenzung und Überwachung der Exposition am Arbeitsplatz / Occupational exposure controls.

##### a) Atemschutz / Occupational exposure controls

If aerosols are generated: Respiratory face mask: class FFP3.

##### b) Handschutz / Hand protection

Suitable gloves are recommended.

##### c) Augenschutz / Eye protection

Safety glasses are recommended.

#### Andere Schutzmaßnahmen / Additional protection measures:

When using do not eat, drink, smoke, sneeze.

#### 8.2.2. Begrenzung und Überwachung der Umweltpollution / Environmental exposure controls

See section 7. No additional measures necessary.

#### 8.2.3. Begrenzung und Überwachung des Stoffes in Verbraucher- oder Folgeprodukten / Substance control in consumer or downstream products

No special measures necessary.

## 9 Physikalische und chemische Eigenschaften / Physical and chemical Properties

### 9.1 Erscheinungsbild / Appearance

**Form / Physical state:** Liquid.  
**Farbe / Colour:** Brown.  
**Geruch / Smell:** Typical.

### 9.2 Wichtige Angaben zum Gesundheits- und Umweltschutz sowie zur Sicherheit / Important health, safety and environmental information

**Schüttgewicht / Bulk density:** Not applicable.  
**Dichte / density:** 1.1 – 1.2 g/cm<sup>3</sup> at 20 °C.  
**pH-Wert (20 °C) / pH-value:** pH 3.5 – 4.5 at 20 °C.  
**Schmelzpunkt / Melting point :** Not applicable.  
**Siedepunkt / Boiling temperature :** approx. 100 °C.  
**Selbstentzündlichkeit / Autoignition ::** No self-ignition.  
**Explosionsgefahr / Explosive properties:** Not applicable.  
**Wasserlöslichkeit / Water solubility:** Miscible.

## 10 Stabilität und Reaktivität / Stability and Reactivity

### 10.1 Zu vermeidende Bedingungen / Conditions to avoid

No decomposition, if applied accordingly. Loss of enzyme activity is possible at temperatures exceeding 10°C, thus cooling necessary.

### 10.2 Zu vermeidende Stoffe / Materials to avoid

No data available.

### 10.3 Gefährliche Zersetzungsprodukte / Hazardous decomposition products

No hazardous decomposition products known.

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## 11 Toxikologische Angaben / Toxicological information

### 11.1 Toxikinetik, Stoffwechsel und Verteilung / Toxicokinetics, metabolism and distribution

According to the present state of knowledge toxic effects are not expected.

### 11.2 Akute Wirkungen (akute Toxizität, Reiz- und Ätzwirkung) / Acute Effects (acute toxicity, Irritant and corrosive effects)

In case of eye contact of prolonged or frequent skin contact, sensitisation and irritation possible. In case of repeated breathing in of enzyme dust and/or aerosol, allergic reactions, asthmatic bronchitis included, can occur with sensitive persons.

## 12 Umweltbezogene Angaben / Ecological information

### 12.1 Ökotoxizität / Ecotoxicity

According to the present state of knowledge negative ecological effects are not expected.

### 12.2 Mobilität / Mobility

According to the present state of knowledge negative ecological effects are not expected.

**12.3 Persistenz und Abbaubarkeit / Persistence and degradability** Part of the components is biodegradable.

**12.4 Bioakkumulationspotential / Bioaccumulative potential** No indication to bioaccumulation potential.

### 12.5 Ergebnis der Ermittlung der PBT-Eigenschaften / Results of PBT assessment

This substance does not meet the criteria for classification as PBT or vPvB.

### 12.6 Andere schädliche Wirkungen / Other adverse effects

According to the present state of knowledge negative ecological effects are not expected.

## 13 Hinweise zur Entsorgung / Disposal considerations

### 13.1 Entsorgung / Abfall (Produkt) / Appropriate disposal / product

Dispose of waste according to applicable local, state, and federal regulations.

### Empfehlung / Recommendation

May be disposed of in household waste landfill.

### 13.2 Entsorgung der Verpackung / Appropriate disposal / packaging

Dispose of waste according to applicable local, state, and federal regulations. RIGK disposal.

## 14 Angaben zum Transport / Transport information

### 14.1 Landtransport (ADR/RID/GGVSE) / Land transport (ADR/RID)

No dangerous good in the sense of this transport regulation.

### 14.2 See (IMDG), Binnen (A.D.N.R.) / Seeschiffstransport (IMDG), Binnenschiffstransport (ADNR)

No dangerous good in the sense of this transport regulation..

### 14.3 Luft (IATA) / Air transport (IATA)

No dangerous good in the sense of this transport regulation.

## 15 Rechtsvorschriften / Regulatory information

### 15.1 EU-Vorschriften / EU-Regulations

Gemäß GHS - Verordnung (EG) 1272/2008 / according to GHS - regulation (EC) 1272/2008

**Gefahrensymbole und Gefahrenbezeichnung / hazard symbol(s) and labelling of the product**

Not required.

**Gefahrbestimmende Komponente(n) zu Etikettierung / Hazard(ous) component(s) for labelling:**

Not applicable.

**H- Sätze / H-phrases**

Not required.

**P- Sätze / P-phrases**

Not required.

### 15.2 Stoffsicherheitsbeurteilung / Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

**Besondere Kennzeichnung bestimmter Zubereitungen / Special provisions concerning the labelling of certain preparations**

Please adhere to EU legislation.

### 15.3 Nationale Vorschriften / National regulations

**Wassergefährdungsklasse / Water hazard class (WGK):** nwg (non-water polluting substance).

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**16 Sonstige Angaben / Other information**

**16.1 Nummer und Wortlaut der H-Sätze unter Abschnitt 3 / Relevant H-phrases under section 3 (Number and full text):**

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**16.2 Schulungshinweise Training instructions:** None.

**16.3 Weitere Informationen / Further information:** Please refer to our internet website for more information..

Mit den vorstehenden Angaben, die dem heutigen Stand unserer Kenntnisse und Erfahrungen entsprechen, wollen wir unser Produkt im Hinblick auf etwaige Sicherheitserfordernisse beschreiben, verbinden damit jedoch keine Eigenschaftszusicherungen und Qualitätsbeschreibungen. Bestehende Gesetze und Bestimmungen sind vom Anwender in eigener Verantwortung zu beachten.

With the information given, which complies with our present knowledge and experience, we would like to describe our products in view of possible safety requirements, however we do not combine any warranty of product property or quality. Laws and regulations currently in force, have to be adhered to by the user.

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